

## **ABSTRACT**

A method and system for providing magnetic memory are disclosed. The method and system include providing a plurality of magnetic memory elements and providing at least one wrapped write line. Each wrapped write line includes a bottom write line and a top write line electrically connected to the bottom write line. The bottom write line resides below a portion of the plurality of magnetic elements, while the top write resides above the portion of the plurality of magnetic elements. The bottom write line carries a first current in a first direction, while the top write line carries a second current in a second direction opposite to the first direction.